

WE GOT THE EATS!

By: Stephanie Shiu, MPH, RD, LD
Clinical Dietitian at Lower Umpqua Hospital District

Fuel for the Future!

Hope 2023 is off to a great start! A new year brings a new theme for National Nutrition Month: Fuel for the Future. This year's theme instantly brings sustainability to my mind. Adapting to a more plant based dietary pattern is more advantageous to our environment compared to animal based diets. Let's discuss other health benefits and some disadvantages of plant based dietary patterns. Questions or comments, as always I love hearing from all of you! I can be reached at Ext 4200 and sshiu@luhonline.com.

Plant -Based?



Plant based dietary patterns are used to describe diets in which the majority of your daily consumption are plants such as fruits, vegetables, nuts seeds, whole grains, oils and legumes/beans. There are variations of this dietary pattern: vegan and vegetarian. What's the difference?

Vegan VS Vegetarian

Vegan diets exclude any animal foods including meat, eggs, dairy and honey. There are different types of vegetarian diets: flexitarian, pescatarian and lacto-ovo vegetarian. Flexitarian diet combines "flexible" and "vegetarian" diet and focuses on whole foods such as fruits, vegetables and legumes with around 9-28 ounces of meat consumed per week with the goal of reducing intake incrementally. Pescartain diet is a diet that avoids meat and poultry but includes fish and seafood. Lacto-ovo avoids meat, poultry fish and seafood but allows eggs and dairy products. There are advantages and disadvantages for each of these diets, let's discuss them!

Deficiencies?

The issue with cutting out large food groups is running the risk of deficiencies. That does not mean going plant based is not a good idea, it just means being mindful and planning out meals snacks to ensure nutritional adequacy. With plant based diets protein, omega 3 fatty acids, vitamin D, iron and vitamin B 12 are the most common micronutrient deficiencies. B 12 supplements are usually recommended with vegetarian and vegan diets.

Protein

Protein is an essential macronutrient (carbohydrate and fat are the other two macronutrients) and is necessary for many different functions in our bodies. We all know protein is the building block of muscles however the list does not end there. Different proteins are involved in the reactions for growth and maintenance, pH balance, fluid balance, communication, biochemical reactions like digestion, storage and transportation of nutrients, immunity, provide structure and energy for our bodies as well.



Omega 3 FA

Omega 3 fatty acids are fatty acids that our bodies cannot make and therefore must be obtained via our diet. Omega 3 fatty acids provide energy for our bodies and are a vital component of cell structure especially in the brain and eyes. They also support cardiovascular health and can lower the risk of macular degeneration, some cancers and Alzheimer's disease. The three types of omega 3 FA are eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA) and alpha-linolenic acid (ALA).

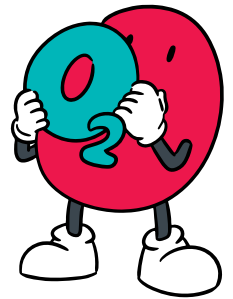
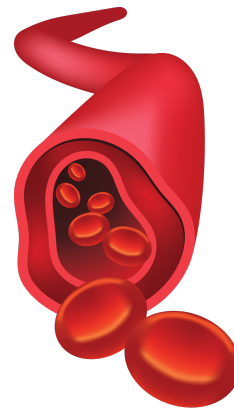
Vitamin D



Vitamin D is a fat soluble vitamin and its main function is to help the body absorb calcium and prevent osteoporosis. Since vitamin D is fat soluble, it builds up in the liver and excess vitamin D can lead to toxicity. It is also known as the sunshine vitamin because when our skin is exposed to the sun, our bodies make vitamin D. Vitamin D also support immunity, muscle function and nerve conduction to carry messages between the brain and the body.

Iron

Iron (Fe) is a mineral which is necessary for the body to make hemoglobin and myoglobin which carries oxygen from the lungs to the rest of the body and oxygen to muscles respectively. Iron is also required for growth, development and the production of certain hormones. Heme iron is found in animal based sources of iron and non heme iron is found in plant based sources.



Vitamin B12

Vitamin B12 is a water soluble vitamin which is responsible for making DNA, genetic material and keeping blood and nerve cells healthy. Without adequate vitamin B 12 intake you can develop a type of anemia called megaloblastic anemia or damage to the nervous system and in infants it can also lead to failure to thrive. Some people have issues absorbing vitamin B 12 from food which requires an acid and protein made by the stomach.

Sources

Protein sources: beef, poultry, pork, fish, seafood, cheese, dairy and dairy products

Vegan protein sources: beans, nuts and nut butters, seeds, lentils, soy products: tofu, edamame, soy milk, textured vegetable protein, tempeh, seitan, peas pea protein milk alternatives

Omega 3 fatty acids from fish and shellfish: herring, mackerel, salmon, rainbow trout oysters, sea bass, sardines, shrimp, rockfish, supplements

Vegan Omega 3 fatty acids: chia seeds, hemp seeds, walnuts, flax seeds, seaweed, algae, edamame, navy beans, kidney beans

Vitamin D sources: salmon, cod, halibut, sardines, sea bass, tuna, egg yolks, fortified milk and yogurt, cod liver oil supplement

Vegan vitamin D sources: fortified milk alternatives, mushrooms, fortified orange juice, fortified cereals

Vitamin B 12: clams, beef liver, beef, rainbow trout, salmon, tuna, milk, cottage cheese, chicken, egg

Vegan vitamin B 12: fortified cereals, fortified nutritional yeast, fortified milk alternatives, meatless meats(chicken, sausage), supplement

Iron sources: red meat, poultry, eggs, offal (liver, kidney), shellfish, tuna and mackerel,

Vegan iron sources: beans (white, kidney, garbanzo) lentils, seeds, nuts, peas, fortified cereal and breads, tofu, oats, dried apricots, prunes, spinach, potato with skin

** With plant based sources of iron, add a source of vitamin C to increase absorption of non heme iron found in plants. **

Considerations

Plant based diets has some cons which include the need for supplements and planning for adequacy however there are also many advantages. Plant based protein typically have less saturated fat and higher fiber which supports heart health, more sustainable and usually more economical. Being plant based does not automatically make it a healthy food item; this is especially true when it comes to packaged foods so read the nutrition label to compare and make the best choice. Look below for some plant based meals and snack ideas!

Sample Menus

Vegan

Breakfast: Green smoothie with silken tofu ([recipe](#))

Lunch: Smashed Chickpea Sandwich on Whole Wheat Toast with Red peppers, tomatoes and lettuce ([recipe](#))

Snack: Whole wheat toast with almond butter topped with sliced bananas and chia seeds

Dinner: Lentil Bolognese with whole wheat pasta topped with fortified nutritional yeast ([recipe](#)) and steamed broccoli

Dessert/Snack: Chocolate Banana Nice cream ([recipe](#))
Top with walnuts and hemp hearts for extra omega 3 boost!

Lacto Vegetarian

Breakfast: Iron Fortified cereal (ex Life) with vit D fortified milk
Cup of berries

Snack: Dates with peanut butter and chocolate chips

Lunch: Greek pasta salad with whole wheat pasta, arugula, cannellini beans and lemon vinaigrette ([recipe](#))

Dinner: Fried quinoa with mixed frozen veggies ([recipe](#))
Add meatless chicken or edamame for extra protein!

Dessert/Snack: Sliced apples with peanut butter Greek yogurt dip ([recipe](#))

Lacto-Ovo Vegetarian

Breakfast: Overnight chocolate peanut butter oatmeal ([recipe](#))

Snack: Orange Creamsicle Smoothie ([recipe](#)) Use vit D and calcium fortified orange juice

Lunch: Vegetarian chili with shredded cheese and corn bread

Dinner: Shakshuka (poached eggs in tomato sauce with spices) ([recipe](#)) with side salad and whole wheat toast

Dessert/Snack: Air popped popcorn with nutritional yeast, garlic powder and herbs

**Swapping your grains and starches for the whole wheat version is a quick and easy way to consume more protein and fiber!